Monolithic Chip Inductors



FEATURES

- 3.2 mm x 1.6 mm x 0.5 mm size
- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL SPECIFICATIONS

Solderability: 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C to 150 °C and type R flux dip

Resistance to Solder Heat: 10 s in 260 °C solder, after preheat and flux per above

Termination: 100 % Sn

Terminal Strength: 0.1 kg for 30 s

Beam Strength: 2.5 kg

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -55 °C to +125 °C

Thermal Shock: -40 °C to +85 °C

Humidity: 90 % RH at 40 °C, 1000 h at full rated current

Load Life: 85 °C for 1000 h at full rated current

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	INDUCTANCE (µH)	TOL. (%)	TEST FREQ. (MHz) L AND Q	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
ILSB1206ER47NM	0.047	20	50	20	368	0.15	300
ILSB1206ER68NM	0.068	20	50	20	322	0.25	300
ILSB1206ERR10K	0.10	10	25	20	271	0.25	250
ILSB1206ERR12K	0.12	10	25	20	253	0.30	250
ILSB1206ERR15K	0.15	10	25	20	230	0.30	250
ILSB1206ERR18K	0.18	10	25	20	213	0.40	250
ILSB1206ERR22K	0.22	10	25	20	196	0.40	250
ILSB1206ERR27K	0.27	10	25	20	173	0.50	250
ILSB1206ERR33K	0.33	10	25	20	167	0.60	250
ILSB1206ERR39K	0.39	10	25	25	156	0.50	200
ILSB1206ERR47K	0.47	10	25	25	144	0.60	200
ILSB1206ERR68K	0.68	10	25	25	121	0.80	150
ILSB1206ER1R0K	1.0	10	10	45	87	0.40	100
ILSB1206ER1R2K	1.2	10	10	45	75	0.50	100
ILSB1206ER1R5K	1.5	10	10	45	69	0.50	50
ILSB1206ER1R8K	1.8	10	10	45	64	0.50	50
ILSB1206ER2R2K	2.2	10	10	45	58	0.50	50
ILSB1206ER3R3K	3.3	10	10	45	48	0.70	50
ILSB1206ER3R9K	3.9	10	10	45	44	0.80	50
ILSB1206ER4R7K	4.7	10	10	45	41	0.90	50
ILSB1206ER5R6K	5.6	10	4	45	37	0.70	25
ILSB1206ER6R8K	6.8	10	4	45	34	0.80	25
ILSB1206ER8R2K	8.2	10	4	45	30	0.90	25
ILSB1206ER100K	10	10	2	45	28	1.00	25
ILSB1206ER120K	12	10	2	45	26	1.05	15
ILSB1206ER150K	15	10	1	45	22	0.70	5
ILSB1206ER180K	18	10	1	45	21	0.70	5
ILSB1206ER220K	22	10	1	35	19	0.90	5
ILSB1206ER270K	27	10	1	35	17	0.90	5
ILSB1206ER330K	33	10	1	35	15	1.05	5

For technical questions, contact: magnetics@vishay.com

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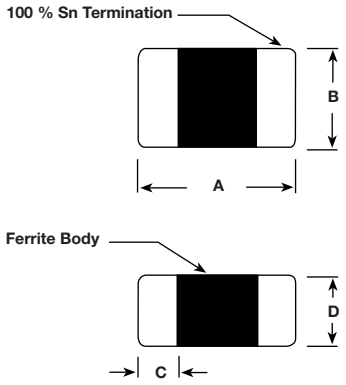
DESCRIPTION

ILSB-1206	3.3 µH	± 10 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

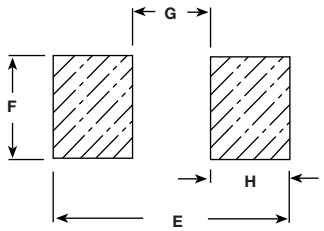
GLOBAL PART NUMBER

I L S B	1 2 0 6	E R	3 R 3	K
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOLERANCE
		ER = tape and reel	**3R3** = 3.3 Ω	**K** = 10 %

DIMENSIONS in inches [millimeters]



Dimensional Outline



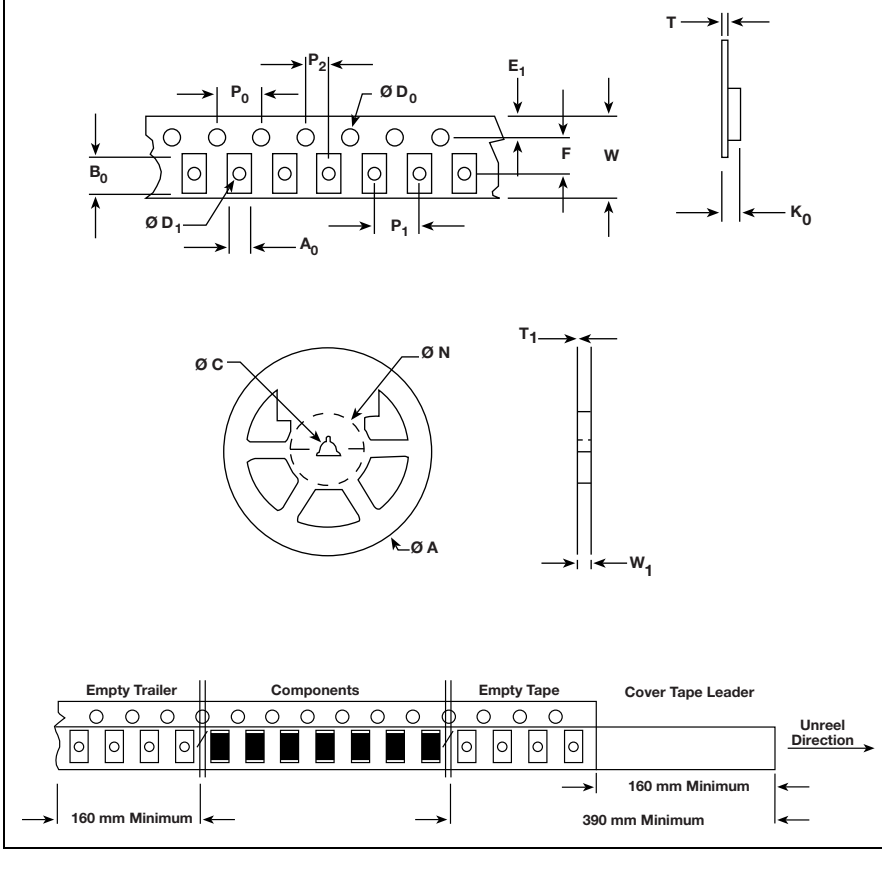
Suggested Pad Layout

A	B	C	D	E	F	G	H
0.126 ± 0.008 [3.2 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.020 ± 0.012 [0.5 ± 0.3]	0.043 ± 0.012 [1.10 ± 0.3]	0.185 [4.7]	0.070 [1.8]	0.087 [2.2]	0.047 [1.2]

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TAPE AND REEL SPECIFICATIONS 1206 SIE PER EIA-481-1 in inches [millimeters]



A_0	0.073 ± 0.004 [1.85 ± 0.1]
B_0	0.135 ± 0.004 [3.43 ± 0.1]
D_0	0.059 + 0.005/- 0.000 [1.5 + 0.127]
D_1	0.039 min. [1.0 min.]
E_1	0.069 ± 0.004 [1.75 ± 0.1]
F	0.138 ± 0.002 [3.50 ± 0.05]
K_0	0.048 ± 0.002 [1.22 ± 0.05]
P_0	0.157 ± 0.004 [4.00 ± 0.1]
P_1	0.157 ± 0.004 [4.00 ± 0.1]
P_2	0.079 ± 0.002 [2.00 ± 0.05]
W	0.327 max. [8.3 max.]
T	0.008 ± 0.002 [0.2 ± 0.05]
A	7.000 ± 0.079 [178 ± 2.0]
N	2.500 [63.5]
C	0.512 ± 0.020 [13.00 ± 0.50]
W_1	0.315 + 0.059/- 0.000 [8.00 + 1.5]
T_1	0.079 ± 0.002 [2.00 ± 0.05]

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